

What is claimed is:

1. A method of eliciting protection from a pathogen causing disease in an animal comprising:

administering to said animal an immunogenic composition at a dosage level so that an antibody response is not observed.

2. The method of claim 1 wherein said pathogen is a viral pathogen.
3. A method of eliciting protection from a pathogen causing disease in an animal comprising:

orally administering to said animal an immunologic composition wherein said composition comprises an edible portion of a transgenic plant which expresses an antigenic determinate of said pathogen and wherein said administration is in a dosage level so that an antibody response is not observed.

4. A method of eliciting protection from a pathogen causing disease in an animal comprising:

orally administering to said animal an immunologic composition wherein said composition comprises a bacterial enterotoxin capable of eliciting and increased interferon level in said animal; and a carrier and wherein said administration is in an effective amount so that an antibody response is not observed.

5. The method of claim 4 wherein said pathogen is a viral pathogen.
6. The method of claim 4 wherein said enterotoxin is a heat labile enterotoxin from *Escherichia coli*.
7. The method of claim 4 wherein said enterotoxin is LT toxin or its subunits.

8. The method of claim 4 wherein said enterotoxin comprises a mutation to inactivate the A subunit.

9. The method of claim 4 wherein said virus is TGEV.

10. The method of claim 4 wherein said animal is a pig.

11. A method of increasing interferon levels in animals so that a protective effect against pathogens is observed, said method comprising:

introducing, to said animal, in oral form, an interferon stimulating amount of an immunologic composition, said composition comprising a bacterial enterotoxin; and a carrier.

12. The method of claim 11 wherein said pathogen is a viral pathogen.

13. A method of increasing interferon levels in animals so that a protective effect against viral pathogens is observed, said method comprising:

introducing, to said animal, in oral form, an interferon stimulating amount of an immunologic composition, said composition comprising a bacterial enterotoxin; and a carrier.

14. The method of claim 13 wherein said enterotoxin is a heat labile enterotoxin from *Escherichia coli*.

15. The method of claim 13 wherein said enterotoxin is LT toxin.

16. The method of claim 13 wherein said enterotoxin comprises a mutation to inactivate the A subunit.

17. The method of claim 13 wherein said virus is TGEV.

18. The method of claim 13 wherein said animal is a pig.

19. A method of inducing protection in an animal from a disease state caused by a rotavirus and coronavirus infection comprising:

orally administering to said animal an alpha interferon stimulating amount of a bacterial enterotoxin.

20. The method of claim 19 wherein said enterotoxin is a heat labile enterotoxin from *Escherichia coli*.
21. The method of claim 19 wherein said enterotoxin is LT toxin.
22. The method of claim 19 wherein said enterotoxin comprises a mutation to inactivate the A subunit.
23. The method of claim 19 wherein said virus is TGEV.
24. The method of claim 19 wherein said animal is a pig.
25. A method of eliciting protection from TGEV in an animal comprising:
orally administering to said animal an immunologic composition wherein said composition comprises an edible portion of a transgenic plant which expresses an antigenic determinate of TGEV and wherein said administration is in a dosage level so that an antibody response is not observed.
26. A method of eliciting protection from a viral pathogen causing disease in an animal comprising:
orally administering to said animal an immunologic composition wherein said composition comprises a bacterial enterotoxin capable of eliciting and increased interferon level in said animal; and a carrier and wherein said administration is in an effective amount so that an antibody response is not observed, wherein said viral pathogen is selected from the group consisting of: TGEV, PRRS, and arterivirus.
27. A method of increasing interferon levels in animals so that a protective effect against viral pathogens is observed, said method comprising:
introducing, in oral form to said animal an interferon stimulating amount of an immunologic composition comprising a bacterial enterotoxin and a carrier.

28. A method of inducing protection in an animal from a rotavirus and coronavirus infection comprising:

administering to said animal an alpha interferon stimulating amount of a bacterial enterotoxin.